

## REMARKS

Claims 1-32 remain in the application.

The Examiner contends that the application contains the following distinct species of the claimed invention:

Species A, drawn to a three-dimensional molecular assembly, formed on a substrate, as depicted in FIG. 2 and described in the specification on pages 9 and 11-21;

Species B, also drawn to a three-dimensional molecular assembly, formed on a substrate, as depicted in FIGS. 5a-5i and described in the specification on pages 10 and 21-24; and

Species C, also drawn to a three-dimensional molecular assembly, formed on a substrate, as depicted in FIGS. 6a-6i and described in the specification on pages 10 and 24-27.

The Examiner requires Applicants to elect a single disclosed species and maintains that there are no claims that appear to be generic.

The election requirement is respectfully traversed as follows: Species A is generic; Species B is a more specific embodiment of Species A, and Species C is a still more specific embodiment of Species B and a variant thereof.

That is to say, Species A comprises (1) a layer of "seed molecules" 22 on top of the substrate 10, (2) followed by a monolayer 24 of "active molecules" on top of the "seed" molecules, and (3) followed by a "spacer" layer 26 on top of the active molecules layer (page 11, lines 12-20).

Species B comprises (1) a seed molecule 22 made up of three portions: -SH, -COOH, and CP, where CP represents a connecting portion of the seeds, used to form the layer 22 of seed molecules, (2) an active molecule 24 made up of three portions: the main body of the active molecule and two connecting groups (-NH<sub>2</sub>), used to form the monolayer 24 of active molecules, and (3) a spacer molecule 26 made up of three portions: two -COOH groups at both ends and an interconnecting portion (ST), used to form the layer 26 of spacer molecules (page 21, line 20 to page 22, line 26).

Species C comprises (1) cysteine as the seed molecule 22 made up of three portions: -SH, -COOH, and -NH<sub>2</sub> (cysteine forms the layer 22 of seed molecules), (2) a Cu<sup>2+</sup> salt, forming the spacer layer 26, and (3) an active molecule 24 made up of

three portions: the main body of the active molecule and two connecting groups ( $\alpha$ -amino acids), used to form the monolayer 24 of active molecules. This is a variant of the previous two species, in that the spacer layer 26 and active layer 24 are interchanged, demonstrating that the order of the layers can be 22-24-26 or 22-26-24.

Applicants hereby elect Species A for prosecution. Claims 1-13 and 17-29 are readable thereon.

The foregoing amendments and arguments are submitted to place the application in condition for allowance. The Examiner is respectfully requested to take such action. If the Examiner has any questions, he is invited to contact the undersigned at the below-listed telephone number. HOWEVER, ALL WRITTEN COMMUNICATIONS SHOULD CONTINUE TO BE DIRECTED TO: IP ADMINISTRATION, LEGAL DEPARTMENT, M/S 35, HEWLETT-PACKARD COMPANY, P.O. BOX 272400, FORT COLLINS, CO 80527-2400.

Respectfully submitted,

April 6, 2005



David W. Collins  
Reg. No. 26,857  
Attorney for Applicants

75 West Calle de las Tiendas  
Suite 125B  
Green Valley, AZ 85614

Telephone calls may be made to:  
(520) 399-3203